Uromycladium tepperianum on *Acacia* spp.

Uromycladium tepperianum is a microcyclic rust that infects more than one hundred species of *Acacia* (Gathe 1971) and several other genera in the Fabaceae, causing large, conspicuous galls (Morris 1987). *Acacia pycnantha* Benth., cultivated in Australia for its bark, is severely affected by *U. tepperianum*, which causes significant yield losses and eventually the death of the host (Gathe 1971). However, this rust has potential as a biocontrol agent for weedy acacias outside of Australia, for example, *U. tepperianum* has been proven a highly effective against *A. saligna* in South Africa (Morris 1997, Wood & Morris 2007).

Uromycladium tepperianum (Sacc.) McAlpine, Ann. Mycol. 3: 310. 1905.

Spermogonia minute, brownish then black, globose, 150 µm diam; spermatia hyaline, ellipsoid.

Aecia and **uredinia** unknown.

Telia develop on galls on leaves, branches, inflorescences, and fruits; infections causing swollen, distorted galls up to 18 × 6 cm, and witches' brooms of different shapes and sizes, cinnamon to chocolate brown, powdery; **teliospores** composed of a cluster of three probasidial cells at top of a single pedicel, depressed globose to globose, cinnamon brown, thickly vertically striate, margin crenulate, wall 2-3 µm, at apex up to 5 µm thick, 14-22 µm high, 18-25 µm wide, one apical germ pore; pedicel hyaline, septate, deciduous.

Hosts: Species of *Acacia*, *Albizia* and *Racosperma* (Fabaceae)

Geographic Distribution Australia, Java, New Caledonia, New Zealand, Papua New Guinea, and South Africa.

Uromycladium is characterized by the production of teliospores composed of 1-3 probasidial cells, with or without cysts, on a single pedicel. Eight species of *Uromycladium* have been described occurring primarily on *Acacia* in Australia and New Zealand. Teliospores of *Uromycladium tepperianum* and *U. notabile* McAlpine have three probasidial cells and no cysts (Burges 1934). *Uromycladium notabile* produces uredinia, and the probasidial cells have linear verrucae, while no uredinia are known for *U. tepperianum* and the probasidial cells are distinctly striate. *Uromycladium acaciae* (Cooke) P. Syd. & Syd. produces teliospores with two probasidial cells and no cysts. Teliospores of *Uromycladium simplex* McAlpine and *Uromycladium robinsoni* McAlpine have one globose probasidial cell and one cyst. *Uromycladium fusisporum* (Cooke & Massee) Savile has teliospores with one probasidial cells and no cyst (Savile 1971). *Uromycladium maritimum* McAlpine and *Uromycladium alpinum* McAlpine produce teliospores with two probasidial cells and one cyst.

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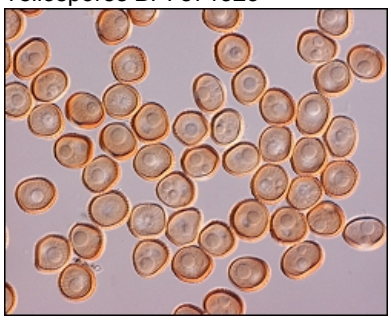

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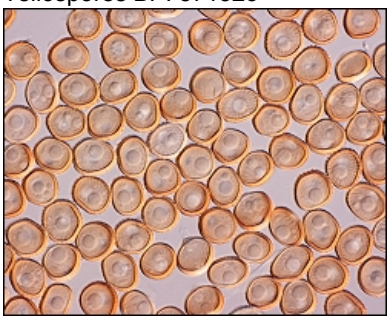

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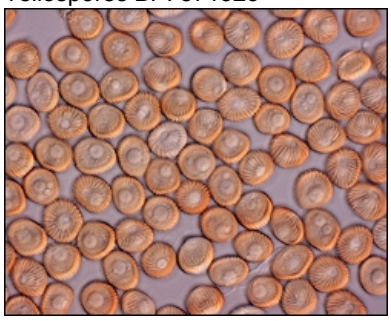

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